CLAIMS

What is claimed is:

1. A method for locating an object device wirelessly communicating with at least one node, the method comprising:

(a) discovering the nodes wirelessly communicating with the object device;

(b) for each node wirelessly communicating with the object device, discovering a location of a coverage area for the node; and,

(c) discovering an area of location for the object device from the location of the coverage area for each node wirelessly communicating with the object device.

2. The method of claim 1 wherein discovering the nodes includes:

(a) querying nodes to discover devices wirelessly communicating with each node;

(b) generating an index of devices wirelessly communicating with each node and the nodes to which each device is wirelessly communicating;

(c) selecting the object device from the index; and,

(d) reading the index to discover the nodes wirelessly communicating with the object device.

3. The method of claim 1 wherein discovering the nodes includes querying nodes to discover whether the object device is wirelessly communicating with the nodes.

4. The method of claim 1 wherein discovering the location of the coverage area for each node wirelessly communicating with the object device

includes reading the location of the coverage area for each node wirelessly communicating with the object device.

5. The method of claim 1 wherein discovering the location of the coverage area for each node wirelessly communicating with the object device includes:

(a) reading a node location for each node wirelessly communicating with the object device; and,

(b) calculating the location of the coverage area from the node location.

6. The method of claim 1 wherein discovering the area of location for the object device includes discovering a region common to the coverage areas for each node communicating wirelessly with the object device.

7. The method of claim 1 wherein discovering the area of location for the object device includes discovering a region excluding the coverage areas for each node not communicating wirelessly with the object device.

8. A system for locating an object device wirelessly communicating with at least one node, the system comprising:

(a) a node searcher configured to discover the nodes wirelessly communicating with the object device;

(b) a coverage area inspector configured to discover a location of a coverage area for the node for each node wirelessly communicating with the object device; and,

(c) an area of location finder configured to discover an area of location for the object device from the location of the coverage area for each node wirelessly communicating with the object device.

9. The system of claim 8 wherein the node searcher includes:

(a) an inquirer configured to query nodes to discover devices wirelessly communicating with each node;

(b) an indexer configured to generate an index of devices wirelessly communicating with each node and the nodes to which each device is wirelessly communicating;

(c) a selector configured to select the object device from the index; and,

(d) an index reader configured to read the index to discover the nodes wirelessly communicating with the object device.

10. The system of claim 8 wherein the node searcher includes an inquirer configured to query nodes to discover whether the object device is wirelessly communicating with the nodes.

11. The system of claim 8 the coverage area inspector includes a node reader configured to read the location of the coverage area for each node wirelessly communicating with the object device.

12. The system of claim 8 wherein the coverage area inspector includes:

(a) a node reader configured to read a node location for each node wirelessly communicating with the object device; and,

(b) a calculator configured to calculate the location of the coverage area from the node location.

13. The system of claim 8 wherein the area of location finder includes a mapper configured to discover a region common to the coverage areas for each node communicating wirelessly with the object device.

14. The system of claim 8 wherein the area of location finder includes a mapper configured to discover a region excluding the coverage areas for each node not communicating wirelessly with the object device.

15. A program storage device readable by a computer, tangibly embodying a program, applet or instructions executable by the computer to perform method steps for locating an object device wirelessly communicating with at least one node, the method steps comprising:

(a) discovering the nodes wirelessly communicating with the object device;

(b) for each node wirelessly communicating with the object device, discovering a location of a coverage area for the node; and,

(c) discovering an area of location for the object device from the location of the coverage area for each node wirelessly communicating with the object device.

16. The program storage device of claim 15 wherein the method step of discovering the nodes includes:

(a) querying nodes to discover devices wirelessly communicating with each node;

(b) generating an index of devices wirelessly communicating with each node and the nodes to which each device is wirelessly communicating;

(c) selecting the object device from the index; and,

(d) reading the index to discover the nodes wirelessly communicating with the object device.

17. The program storage device of claim 15 wherein the method step of discovering the nodes includes querying nodes to discover whether the object device is wirelessly communicating with the nodes.

18. The program storage device of claim 15 wherein the method step of discovering the location of the coverage area for each node includes reading the location of the coverage area for each node.

19. The program storage device of claim 15 wherein the method step of discovering the area of location for the object device includes discovering a region common to the coverage areas for each node communicating wirelessly with the object device.

20. The program storage device of claim 15 wherein the method step of discovering the area of location for the object device includes discovering a region excluding the coverage areas for each node not communicating wirelessly with the object device.